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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/579,278	LAPPE, KURT	
	<b>Examiner</b>	<b>Art Unit</b>	
	LEO T. HINZE	2854	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2011.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,7,9,19,20,22-25 and 27-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7,9,19,20,22-25 and 27-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-3, 5, 7, 9, 18-20, 22-25, and 27-31 have been considered but are moot in view of the new ground(s) of rejection.

a. Applicant argues on p. 12 that Vaughn teaches away from actively drying the printed matter. The examiner disagrees. Applicant's only support for this position is that Vaughn does not teach actively drying the printed matter. Merely teaching one method of printing is not an implicit teaching away from all that is not taught.

b. Applicant argues on p. 12 that the embossing disclosed by Vaughn is merely a "disruption" of the structure of the substrate, and will not result in any visible change in the substrate, due to the stretchable nature of the substrate. The examiner finds this argument to stretch the bounds of credulity. However, in the spirit of fully responding to all of Applicant's arguments, it should be noted that the claim only requires the step of embossing. As Vaughn discloses "embossing at least one of the surface of the web substrate," (col. 2, lines 1-2), the ordinarily skilled artisan will understand that use of the term embossing implies that the surface of an embossed substrate will show the results of being embossed, the results including a perceptible change in the surface of the substrate. If, as Applicant alleges, the embossing of Vaughn would cause no perceptible change to the surface of the substrate, due to the stretchable nature of the substrate, then why would Vaughn expend the effort required to emboss the substrate?

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c. Applicant argues on p. 12 that it would be impossible to secure a transfer layer to an uneven, embossed surface. It should be noted that this position is contrary to the claimed invention, for example claim 3, where it is claimed that the transfer layer is applied to the substrate after embossing.

d. Applicant argues on p. 12 that embossing cannot take place before printing, because the use of rollers (presumably printing rollers) would destroy the elevations and indentations, or hinder ink printing because of a required gap between the rollers. It should be noted that this position is contrary to the claimed invention, for example claim 5, where it is claimed that embossing could occur before printing.

e. Applicant argues on p. 13 that Gross fails to disclose drying of the adhesive after applying the transfer layer, and in fact teaches away from such a drying. The examiner disagrees. Gross merely fails to disclose an additional heating station after application of the transfer layer. Drying of the adhesive will continue after the transfer layer is applied, up to an until the point where drying of the adhesive is no longer possible.

f. Applicant argues on p. 13 that it would not be possible to apply a transfer layer to an embossed substrate due to a lack of clearance between the rollers used to apply the transfer layer. The examiner disagrees. It should be not that this is contrary to the claimed invention, for example claim 3, where it is claimed that the transfer layer is applied to the substrate after embossing.

### ***Claim Objections***

2. Claim 23 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is

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required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

a. Claim 23 recites “wherein actively drying with the drying device completely dries the adhesive layer.” However, active drying of the adhesive layer is only claimed in the alternative in claim 1. That is, one interpretation of claim 1 fails to include active drying of the adhesive layer. Therefore, any claims which further limit the active drying of the adhesive layer fail to further limit the version of claim 1 in which only the printing is actively dried.

3. Claim 27 is objected to because of the following informalities: claim 19 is not a method claim.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 5, 9, 18-20, 22-25, and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gross et al., US 5,603,259 A (hereinafter Gross) in view of Vaughn et al., US 6,983,686 B2 (hereinafter Vaughn).

a. Regarding claim 1:

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Gross teaches a method for the production of print products by combining various immediately successive processing methods, the method comprising the steps of: partially coating less than an entirety of a base material with an adhesive layer at predetermined positions of the base material corresponding to intended locations of the print products (“the raised area 80 of the flex-o-plate 77, which area now contains the adhesive 68, comes into contact with the web 12 and creates an adhesive pattern thereon,” col. 4, lines 51-54; Fig. 3 shows the printing 32 and 50 and transfer layer 100 are provided at the same location); providing a transfer film including a carrier foil layer, a parting layer, and a transfer layer (“roll leaf 90... has characteristics which are standard in the roll leaf industry,” col. 3, lines 46-47; the standard characteristics appear to be the foil layer 92, parting layer between the foil and transfer layers, and transfer layer 98, Fig. 2); removing said transfer layer from said carrier foil and transferring less than an entirety of the transfer layer to the base material exclusively at the predetermined positions of the base layer by adhering the transfer layer to the adhesive (“cause a size-coated metallic layer 98 of the roll leaf 90 to adhere to the adhesive 68 on the web 12,” col. 4, lines 10-12); providing a color printing at the predetermined positions of the base material before coating the base material with an adhesive (“the raised area 44 of the flex-o-plate 40, which are now contains the ink 32, comes into contact with the web 12 and creates an ink pattern thereon,” col. 4, lines 11-14); and actively drying with a drying device the color printing (“which patterns are dried as the web 12 passes through the neat tunnel interposed between the fast printing station 14 and the intermediate printing station 16,” col. 4, lines 18-20); wherein the print product to be produced successively undergo the preceding steps in one continuous sequence without intermediate storage (Fig. 1, foil transfer occurs immediately after printing stages); and wherein at each predetermined position on

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the substrate the transferred portion of the transfer layer and the color printing overlap and are positioned in stacked vertical alignment with respect to the base material (Fig. 3 shows the registration of printing 32 and 50 with foil transfer 100).

Gross does not teach providing an embossing at the predetermined positions of the base material; and wherein the embossing overlaps the printing and transfer layer in stacked vertical alignment.

Vaughn teaches a method and apparatus of embossing and printing a web (col. 2, lines 1-8), wherein the printing and embossing are overlaid in stacked vertical alignment (“where the printed image and the embossed image overlap, resulting in a synergistic visual interaction between the two images,” col. 3, lines 37-39), and where the printing is carried out on the web immediately after embossing, and without intermediate storage (printing roll 31 immediately follows embossing roll 22, Fig. 1). Embossing is known to enhance the aesthetics of consumer products (col. 1, lines 19-20).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Gross to provide an embossing at the predetermined positions of the base material, because Vaughn teaches that one can predictably print and emboss a substrate in vertically stacked alignment, and embossing is advantageous for enhancing the aesthetics of consumer products.

b. Regarding claim 2:

The combination of Gross and Vaughn teaches the method of claim 1 as discussed in the rejection of claim 1 above.

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The combination of Gross and Vaughn does not teach wherein prior to the embossing and the color printing, the transfer layer is adhered to the base material with the adhesive and the adhesive is dried.

It has been held that mere rearrangement of parts is not sufficient to patentably distinguish an invention over the prior art. See MPEP § 2144.04.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Gross to place the adhesive application and transfer stations before the printing stations, because this would predictably allow the printing to proceed after the foil transfer, and one having ordinary skill in the art may desire to take advantage of the aesthetic effects that would result, such as, for example, the effect of printing on top of the transferred foil leaf.

c. Regarding claim 3, the combination of Gross and Vaughn teaches the method of claim 1 as discussed in the rejection of claim 1 above. The combination of Gross and Vaughn also teaches wherein after the embossing and color printing, the color printing is dried and the transfer layer is transferred to the base material with the adhesive (the combination of Gross and Vaughn could result in an apparatus where the embossing is either after or before the foil transfer).

d. Regarding claim 5, the combination of Gross and Vaughn teaches the method of claim 1 as discussed in the rejection of claim 1 above. The combination of Gross and Vaughn also teaches wherein the color printing is provided after the embossing (Vaughn: the printing roll 32 is downstream of the embossing roll 22, Fig. 1).



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e. Regarding claim 9, the combination of Gross and Vaughn teaches the method of claim 1 as discussed in the rejection of claim 1 above. The combination of Gross and Vaughn also teaches pressing the transfer layer onto the base material using a pressing unit (Gross: pressing unit comprises rollers 92, 94, Fig. 1).

f. Regarding claim 18:

Gross teaches a method for producing a print product, said method comprising: coating a base layer with an adhesive layer exclusively at predetermined positions of the base layer corresponding to desired locations of the print products (“the raised area 80 of the flex-o-plate 77, which area now contains the adhesive 68, comes into contact with the web 12 and creates an adhesive pattern thereon,” col. 4, lines 51-54; Fig. 3 shows the printing 32 and 50 and transfer layer 100 are provided at the same location); providing a transfer film having at least a carrier foil layer, a parting layer and said transfer layer (“roll leaf 90... has characteristics which are standard in the roll leaf industry,” col. 3, lines 46-47; the standard characteristics appear to be the foil layer 92, parting layer between the foil and transfer layers, and transfer layer 98, Fig. 2); transferring portions of the transfer layer to said base layer exclusively at the predetermined positions including the adhesive (“cause a size-coated metallic layer 98 of the roll leaf 90 to adhere to the adhesive 68 on the web 12,” col. 4, lines 10-12); printing the base layer with a print at the predetermined positions of the base layer before coating the base layer with the adhesive layer (“the raised area 44 of the flex-o-plate 40, which are now contains the ink 32, comes into contact with the web 12 and creates an ink pattern thereon,” col. 4, lines 11-14); actively drying the print in a drying unit (“which patterns are dried as the web 12 passes through the neat tunnel interposed between the fast printing station 14 and the intermediate printing station 16,” col. 4,

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lines 18-20); and wherein the method is performed successively and continuously without intermediate storage (Fig. 1, foil transfer occurs immediately after printing stages); wherein at each predetermined position the adhesive and the transfer layer are in overlapping, vertical alignment with respect to the base layer (Fig. 3 shows the registration of printing 32 and 50 with foil transfer 100).

Gross does not teach embossing the base layer at the predetermined positions of the base layer after coating the base layer with the adhesive layer; wherein the embossing is overlapping, in vertical alignment, with respect to the printing and transfer layer.

Vaughn teaches a method and apparatus of embossing and printing a web (col. 2, lines 1-8), wherein the printing and embossing are overlaid in stacked vertical alignment (“where the printed image and the embossed image overlap, resulting in a synergistic visual interaction between the two images,” col. 3, lines 37-39), and where the printing is carried out on the web immediately after embossing, and without intermediate storage (printing roll 31 immediately follows embossing roll 22, Fig. 1). Embossing is known to enhance the aesthetics of consumer products (col. 1, lines 19-20).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Gross to provide an embossing at the predetermined positions of the base material, because Vaughn teaches that one can predictably print and emboss a substrate in vertically stacked alignment, and embossing is advantageous for enhancing the aesthetics of consumer products.

g. Regarding claim 19:

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Gross teaches a combined in-line printing apparatus comprising: a gluing unit configured to selectively apply an adhesive to a plurality of predetermined positions of a base printing material fed through said printing apparatus, each one of the predetermined positions corresponding to a desired location of a print product on the base printing material (“the raised area 80 of the flex-o-plate 77, which area now contains the adhesive 68, comes into contact with the web 12 and creates an adhesive pattern thereon,” col. 4, lines 51-54; Fig. 3 shows the printing 32 and 50 and transfer layer 100 are provided at the same location; gluing unit 18, Fig. 1); a film transfer device configured to transfer a transfer layer of a transfer film to said base material exclusively at the predetermined positions to which the adhesive has been previously applies (24, Fig. 1), said transfer film having at least a carrier foil layer, a parting layer, and said transfer layer (“roll leaf 90... has characteristics which are standard in the roll leaf industry,” col. 3, lines 46-47; the standard characteristics appear to be the foil layer 92, parting layer between the foil and transfer layers, and transfer layer 98, Fig. 2); a printing device configured to print a material exclusively at the predetermined positions of said base material (14, 16, Fig. 1; “the raised area 44 of the flex-o-plate 40, which are now contains the ink 32, comes into contact with the web 12 and creates an ink pattern thereon,” col. 4, lines 11-14); a drying unit configured to actively dry said adhesive (20, Fig. 1); and wherein said base layer interacts with said gluing unit, said film transfer device, and said printing device without intermediate storage to provide the adhesive, the transfer film, and the print material in overlapping vertical alignment on the base printing material at each of the predetermined portions (Fig. 1, foil transfer occurs immediately after printing stages; Fig. 3 shows the registration of printing 32 and 50 with foil transfer 100).

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Gross does not teach a stamping device configured to form a pattern in said base material exclusively at each of the predetermined positions, the pattern including at least one of elevations or indentations; a pressing unit having a plurality of calenders configured to compress said base layer and said transfer layer; wherein the pattern is in overlapping vertical alignment on the base printing material at each of the predetermined portions.

Vaughn teaches a method and apparatus of embossing and printing a web (col. 2, lines 1-8), wherein the printing and embossing are overlaid in stacked vertical alignment (“where the printed image and the embossed image overlap, resulting in a synergistic visual interaction between the two images,” col. 3, lines 37-39), and where the printing is carried out on the web immediately after embossing, and without intermediate storage (printing roll 31 immediately follows embossing roll 22, Fig. 1). Embossing is known to enhance the aesthetics of consumer products (col. 1, lines 19-20).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Gross to provide an embossing at the predetermined positions of the base material, because Vaughn teaches that one can predictably print and emboss a substrate in vertically stacked alignment, and embossing is advantageous for enhancing the aesthetics of consumer products.

h. Regarding claim 20, the combination of Gross and Vaughn teaches the device of claim 19 as discussed in the rejection of claim 19 above. The combination of Gross and Vaughn also teaches wherein said base layer interacts with said film transfer device before said stamping device (the combination of Gross and Vaughn could result in an apparatus where the embossing is either after or before the foil transfer).

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i. Regarding claim 22, the combination of Gross and Vaughn teaches the device of claim 21 as discussed in the rejection of claim 21 above. The combination of Gross and Vaughn also teaches wherein said drying unit is between of said gluing unit and said printing device (Gross: 20, Fig. 1).

j. Regarding claim 23, the combination of Gross and Vaughn teaches the method of claim 1 as discussed in the rejection of claim 1 above. The combination of Gross and Vaughn also teaches wherein actively drying with the drying device completely dries the adhesive layer (Gross: "the heating station 20, which functions to evaporate water contained in the adhesive 68 that has been applied to the web 12, thereby drying the adhesive," col. 4, line 65 through col. 5, lines 1).

k. Regarding claim 24, the combination of Gross and Vaughn teaches the method of claim 1 as discussed in the rejection of claim 1 above. The combination of Gross and Vaughn also teaches wherein the drying step include drying with infrared radiation (Gross: heat tunnel, col. 3, lines 37-45).

l. Regarding claim 25, the combination of Gross and Vaughn teaches the method of claim 1 as discussed in the rejection of claim 1 above. The combination of Gross and Vaughn also teaches wherein the drying device includes a first part on a first side of the print products and a second part on a second side of he print products (Gross: heat tunnel 20 fully envelops the printed web, Fig. 1).

m. Regarding claim 27, the combination of Gross and Vaughn teaches the method of claim 19 as discussed in the rejection of claim 19 above. The combination of Gross

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and Vaughn also teaches wherein said drying unit includes infrared radiation (Gross: heat tunnel, col. 3, lines 37-45).

n. Regarding claim 28, the combination of Gross and Vaughn teaches the device of claim 22 as discussed in the rejection of claim 22 above. The combination of Gross and Vaughn also teaches wherein the drying unit is downstream from the gluing unit (Gross: 20, Fig. 1).

o. Regarding claim 29, the combination of Gross and Vaughn teaches the method of claim 1 as discussed in the rejection of claim 1 above. The combination of Gross and Vaughn also teaches wherein at each predetermined position on the substrate the transferred portion of the transfer layer, the color printing, and the embossing are provided with the same design pattern (Patentability of a product cannot depend upon the design of printed material. See MPEP §2112.01. In this case, the ordinarily skilled artisan is free to choose whatever design is desired, including a design in which each of the printing, stamping, and foil transfer layer have the exact same identical design pattern).

p. Regarding claim 30, the combination of Gross and Vaughn teaches the method of claim 18 as discussed in the rejection of claim 18 above. The combination of Gross and Vaughn also teaches wherein at each predetermined position on the substrate the transferred portion of the transfer layer, the color printing, and the embossing are provided with the same design pattern (Patentability of a product cannot depend upon the design of printed material. See MPEP §2112.01. In this case, the ordinarily skilled artisan is free to choose whatever design is desired, including a design in which each of

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the printing, stamping, and foil transfer layer have the exact same identical design pattern).

q. Regarding claim 31, the combination of Gross and Vaughn teaches the device of claim 19 as discussed in the rejection of claim 19 above. The combination of Gross and Vaughn also teaches wherein the transfer film, the pattern formed by the stamping device, and the print material each include the same design pattern (Patentability of a product cannot depend upon the design of printed material. See MPEP §2112.01. In this case, the ordinarily skilled artisan is free to choose whatever design is desired, including a design in which each of the printing, stamping, and foil transfer layer have the exact same identical design pattern).

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gross in view of Vaughn applied to claim 1 above, and further in view of Miyamoto et al., US 6,033,509 A (hereinafter Miyamoto).

The combination of Gross and Vaughn teaches the method of claim 1 as discussed in the rejection of claim 1 above.

The combination of Gross and Vaughn does not teach wherein a transfer film that has been supplied for the film printing method is stretched in the direction of width.

Miyamoto teaches stretching of a transfer film prior to application to reduce wrinkles in the transfer film (col. 6, lines 28-29)

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to further modify Gross wherein a transfer film that has been supplied for

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the film printing method is stretched in the direction of width as taught by Miyamoto, because this helps reduce wrinkles in the transfer film.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo T. Hinze whose telephone number is 571.272.2864. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571.272.2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Leo T. Hinze  
Patent Examiner  
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07 March 2011

/Daniel J. Colilla/

Primary Examiner

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